

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

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1. AGENCY USE ONLY (Leave blank)		2. REPORT DATE July 1, 1995		3. REPORT TYPE AND DATES COVERED	
4. TITLE AND SUBTITLE Responsibility, Stress, and Health: Testing the Triangle Model of Responsibility				5. FUNDING NUMBERS	
6. AUTHOR(S) Thomas W. Britt, Margaret A. Moore, Amy B. Adler, & Paul T. Bartone				8. PERFORMING ORGANIZATION REPORT NUMBER WRAIR/TR- 95-0010	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) US Army Medical Research Unit-Europe Unit 29218 APO AE 09102				10. SPONSORING/MONITORING AGENCY REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) US Army Medical Research & Materiel Command Ft. Detrick, Frederick, MD 21702-5012				11. SUPPLEMENTARY NOTES	
12a. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited.				12b. DISTRIBUTION CODE	
13. ABSTRACT (Maximum 200 words) The present research tested the utility of the Triangle Model of Responsibility (Schlenker, Britt, Pennington, Murphy, & Doherty, 1994) in accounting for soldiers' feelings of responsibility for and commitment to an upcoming mission. The extent to which high responsibility engages the self-system was also examined. In support of the model, simultaneous multiple regression revealed that responsibility and commitment to the mission were greatest when the prescriptions for performance were clear, when the mission was perceived as relevant to the soldier's training, and when the soldier felt personal control over his or her job performance. The relationship between job stress and health symptomatology was much stronger when soldiers felt responsible for their job performance, indicating a greater engagement of the self-system. The results indicate the importance of responsibility for self-regulation, and suggest that responsibility can have potentially beneficial or detrimental effects depending on job stress.					
14. SUBJECT TERMS responsibility, stress, health, commitment				15. NUMBER OF PAGES	
17. SECURITY CLASSIFICATION OF REPORT UNCLAS				18. SECURITY CLASSIFICATION OF THIS PAGE UNCLAS	
19. SECURITY CLASSIFICATION OF ABSTRACT UNCLAS				20. LIMITATION OF ABSTRACT	
16. PRICE CODE					

19950905 025

Accession For	
NTIS	CRA&I <input checked="" type="checkbox"/>
DTIC	TAB <input type="checkbox"/>
Unannounced <input type="checkbox"/>	
Justification _____	
By _____	
Distribution / _____	
Availability Codes	
Dist	Avail and/or Special
A-1	

Responsibility-1

Responsibility, Stress, and Health: Testing the Triangle Model of Responsibility

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Abstract

The present research tested the utility of the Triangle Model of Responsibility (Schlenker, Britt, Pennington, Murphy, & Doherty, 1994) in accounting for soldiers' feelings of responsibility for and commitment to an upcoming mission. The extent to which high responsibility engages the self-system was also examined. In support of the model, simultaneous multiple regression revealed that responsibility and commitment to the mission were greatest when the prescriptions for performance were clear, when the mission was perceived as relevant to the soldier's training, and when the soldier felt personal control over his or her job performance. The relationship between job stress and health symptomatology was much stronger when soldiers felt responsible for their job performance, indicating a greater engagement of the self-system. The results indicate the importance of responsibility for self-regulation, and suggest that responsibility can have potentially beneficial or detrimental effects depending on job stress.

Responsibility, Stress, and Health: Testing the Triangle Model of Responsibility

The concept of personal responsibility is important for understanding both social control and self-regulation. It is through responsibility that individuals are held accountable for their actions and receive relevant rewards and punishments. It is also through responsibility that individuals become engaged in their activities. When an individual is responsible for a performance, he or she will work hard and persevere to achieve desired goals. When an individual does not feel responsible for a given event, feelings of indifference develop where the outcome of the event has little impact on the individual. Although researchers have examined some of the determinants of responsibility, prior analyses often focused on only one dimension of responsibility, not giving the concept the multi-faceted treatment it warranted. Schlenker et al. (1994) developed the Triangle Model to specify when an actor would be judged responsible by others as well as when an actor would feel personally responsible for his or her performance. In the present research we test of the utility of the model in accounting for personal responsibility and commitment among soldiers preparing for an upcoming mission. We also examine whether responsibility leads to a greater engagement of the self in the mission.

The Triangle Model of Responsibility

RESPONSIBILITY is defined as the psychological adhesive that connects an actor to an event and to relevant prescriptions that should govern conduct (Schlenker et al., 1994). All performance situations involve information about:

1. The **PRESCRIPTIONS** (rules or codes) that should be guiding the individual's conduct on the occasion (e.g. rules of engagement, "shop" rules).

2. The **EVENT** or performance that occurred or is anticipated (e.g., the mission, the battle).

3. The **IDENTITY IMAGES** that describe the individual's roles, qualities, convictions, and aspirations as they bear on the prescriptions and event (e.g. soldier, Christian, father).

The strength of the linkages among these elements determines how responsible and committed an individual will feel in a performance situation. Responsibility will be greater when:

1) A clear, well-defined set of prescriptions are applicable to the event;

PRESCRIPTION-EVENT link. For example, the rules of engagement for a mission are clear and the individual feels informed about what is expected to produce superior performance. This link is weak when the individual does not know what to expect or if conflicting prescriptions apply to a particular event (e.g. do I follow the orders of my commander and shoot or do I follow my own beliefs and refrain from shooting?).

2) The individual perceives himself or herself to be bound by the prescriptions by virtue of his or her identity; **PRESCRIPTION-IDENTITY** link. For example, a soldier is performing a job he or she was trained to do, rather than being asked to do something for which the soldier has little training (e.g. sometimes soldiers receive no additional training on peacekeeping operations). This linkage deals with what prior authors have termed "role responsibility" (Hamilton, 1978), and indicates the importance of the individual's position and training in feelings of responsibility.

3) The individual has personal control over the event; **IDENTITY-EVENT** link. For example, the soldier performs his or her job out of an intrinsic interest for the job itself, rather than because he or she was ordered to do it (see Deci & Ryan, 1987).

When the linkages among the elements are strong, they provide purpose and direction to behavior and instill motivation and commitment. The individual knows what to expect going into the performance, believes the performance is relevant to what he or she was trained to do, and feels personal control over the performance. When the linkages among the elements are weak, the individual does not know what is expected, feels he or she is untrained for the job, and does not perceive personal control over the performance. When an individual feels responsible for a performance, the outcome of the performance will have a greater impact on the individual. This is true both because the individual will be entitled to relevant rewards or punishments associated with the performance, and because the actor is more likely to "own" the performance. Therefore, high responsibility engages the individual, leading experiences relevant to the performance to have more influence on the individual's psychological and physical health.

Predictions

1. We tested whether the Triangle model would predict responsibility and commitment for soldiers preparing for an upcoming mission. We expected that each linkage would **independently** predict variability in responsibility/commitment ratings. That is, responsibility/commitment would increase as the number of strong linkages increased.

2. We also examined whether responsibility engages the self-system. When individuals feel responsible for their job performance, they should be more engaged in the activity, and the outcome of the activity should have a greater impact on the individual. Therefore, we predicted that the relationship between job stress and physical/psychological health would be greater for those soldiers who felt more responsible for their job performance.

METHOD

Members of a Patriot Missile Battalion (N=298) completed a survey including items tapping the responsibility model, job stress, health, and psychological well-being approximately 1 to 2 weeks before deploying to Saudia Arabia for a 5 month contingency operation. For the responsibility linkages and items, soldiers were asked their extent of agreement with the following statements: "The mission is relevant to my role as a soldier" (**prescription-identity link; P-I**), "I feel informed about what should happen on the mission" (**prescription-event link; P-E**), "I will have control over my job on the mission" (**identity-event link; I-E**), "I feel responsible for my performance during the mission" (assessment of **responsibility**), and "I am committed to the mission" (assessment of **commitment**). The responsibility and commitment items were highly correlated, and therefore combined into a single dependent measure.

Soldiers also rated their degree of job stress and completed a 20-item symptom inventory (Bartone et al., 1989) and **Psychological Well-Being** scale (Bradburn, 1969). A factor analysis revealed three factors for the symptom inventory: **psychosomatic complaints** (e.g. upset stomach, headaches), **autonomic arousal** (e.g. hands sweating, rapid heart beat), and **dejection** (e.g. crying easily, feeling life is pointless).

RESULTS

The Triangle Model

Standard multiple regression was used to test the hypothesis that the three linkages would independently predict responsibility/commitment. The results supported the hypothesis, with all three linkages predicting responsibility/commitment independently (P-I link, $t = 6.08$, $p < .01$; P-E link, $t = 2.87$, $p < .01$; I-E link, $t = 5.31$, $p < .01$; see **Figure 1**). The multiple correlation between the three linkages and responsibility/commitment was $R = .65$. As seen in **Figure 1**, as the number of strong links increased, so did responsibility/commitment.

Engaging the Self-system

Results showed that responsibility and stress on the job interacted to predict psychosomatic symptoms, $t = 2.20$, $p < .05$ and psychological well-being, $t = -1.94$, $p = .05$. The interactions are displayed in **Figures 2 and 3** based on suggestions by Cohen and Cohen (1983), and indicate that the relationship between job stress and psychological/physical health was magnified under conditions of high responsibility. When soldiers felt responsible for their upcoming performance, the degree of stress in their job was a much stronger predictor of psychological and physical health symptoms than when they felt less responsible.

CONCLUSIONS

The results support the utility of the triangle model in understanding an individual's responsibility and commitment to an upcoming performance. Individuals felt most responsible and committed when the rules for performance were clear, when the performance was deemed relevant to their training, and when they had personal control over their performance.

Responsibility also appeared to engage the self-system, with the relationship between job stress and health being stronger for those feeling responsible for their job performance.

This suggests that responsibility engages the self and therefore is a crucial link in the process of self-regulation.

The results also indicate that increasing responsibility can either hinder or promote psychological and physical health, depending on the amount of stress that accompanies the event or performance. The best strategy for minimizing psychological and physical symptoms appears to be to increase responsibility and commitment while at the same time increasing the individual's expectancy that he or she will be able to perform the given task. As Bandura (1977) made clear in his social learning theory, it is not enough to know what to do in order to achieve a given outcome. The individual must also believe he or she possesses the ability to achieve what is required.

REFERENCES

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Figure 1: Responsibility/Commitment as a Function of the Number of Strong Links
Patriot Pre-Deployment Study

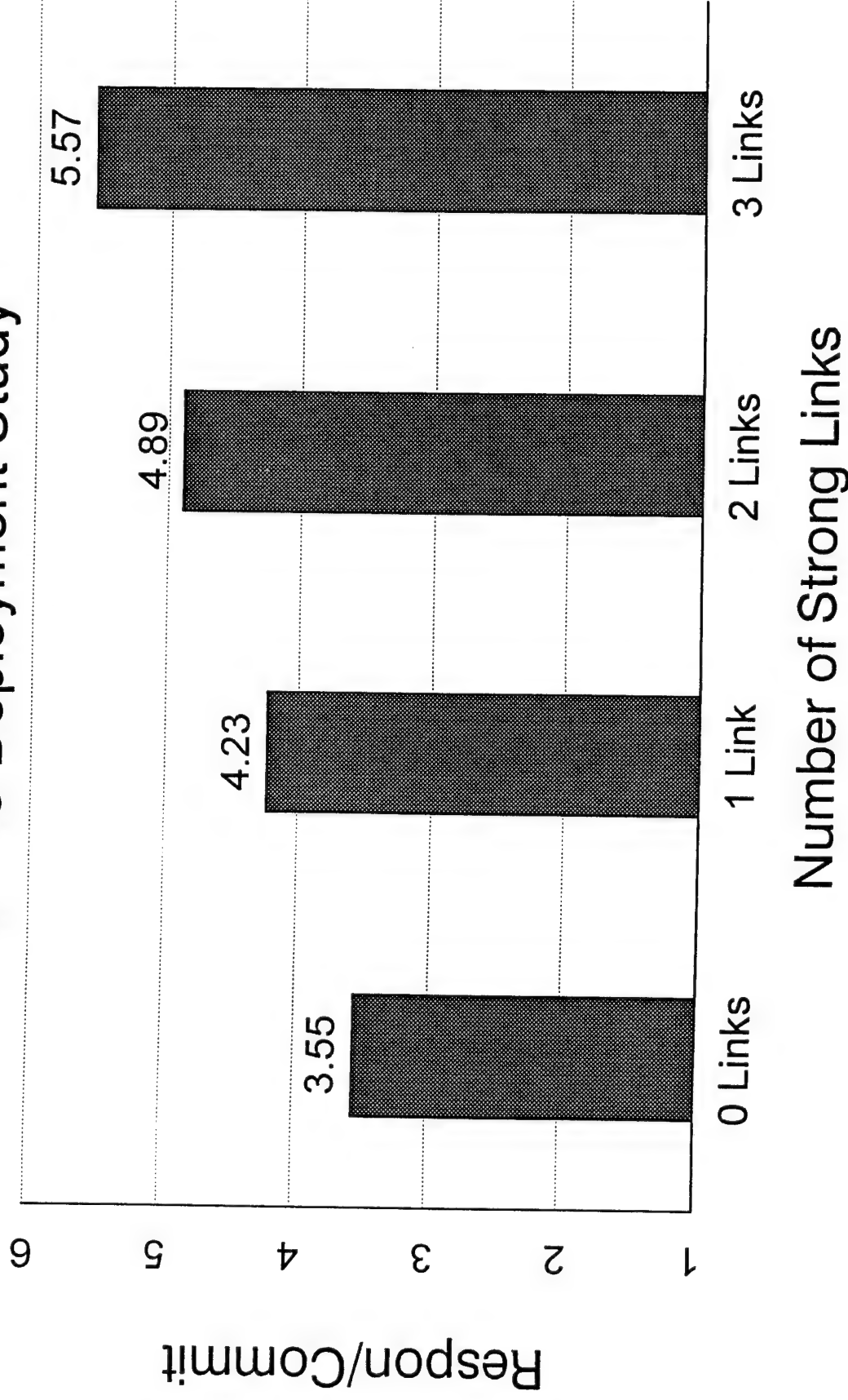


Figure 2: Psychosomatic Symptoms as a Function of Responsibility/Commitment and Stress on the Job

Patriot Pre-Deployment Study

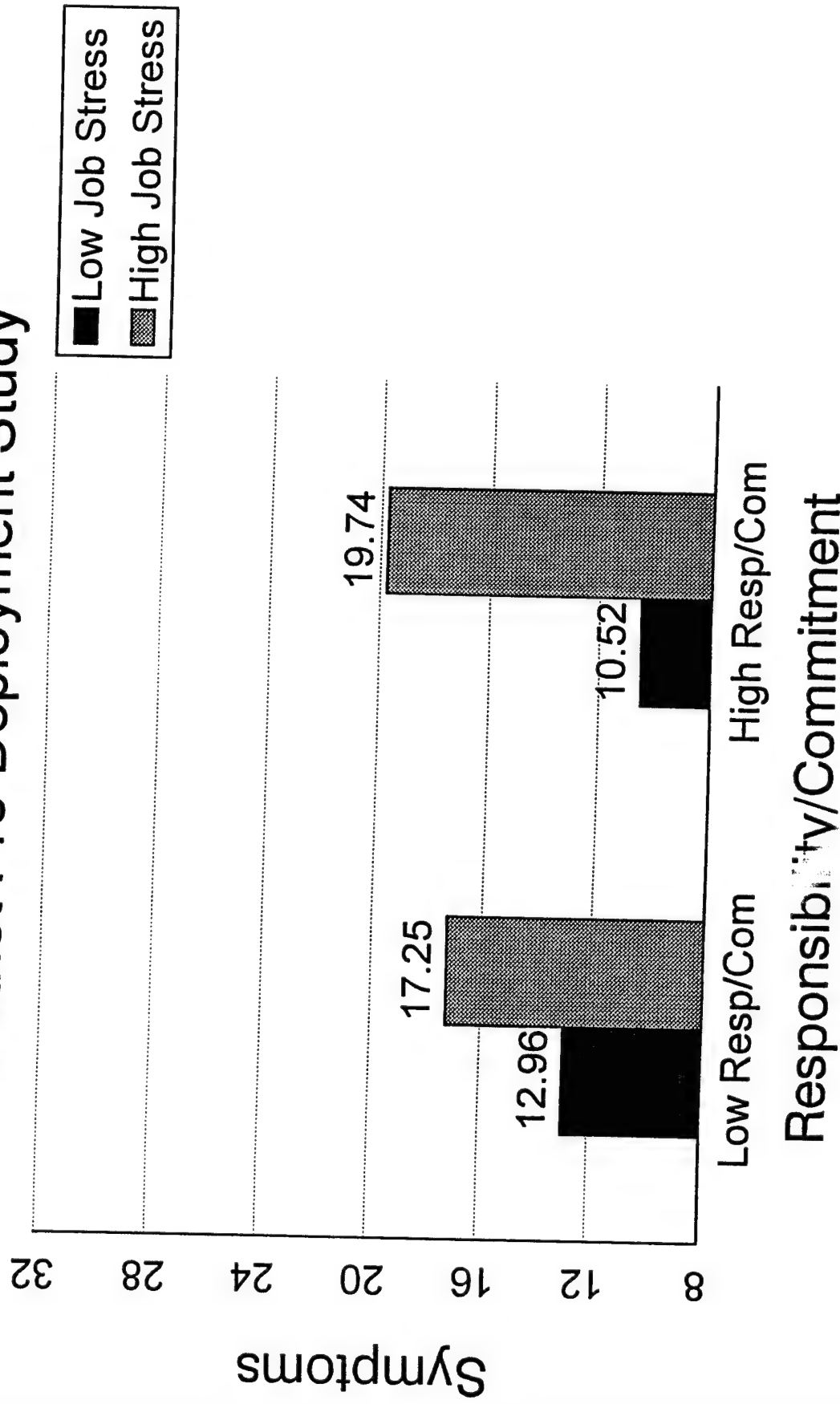
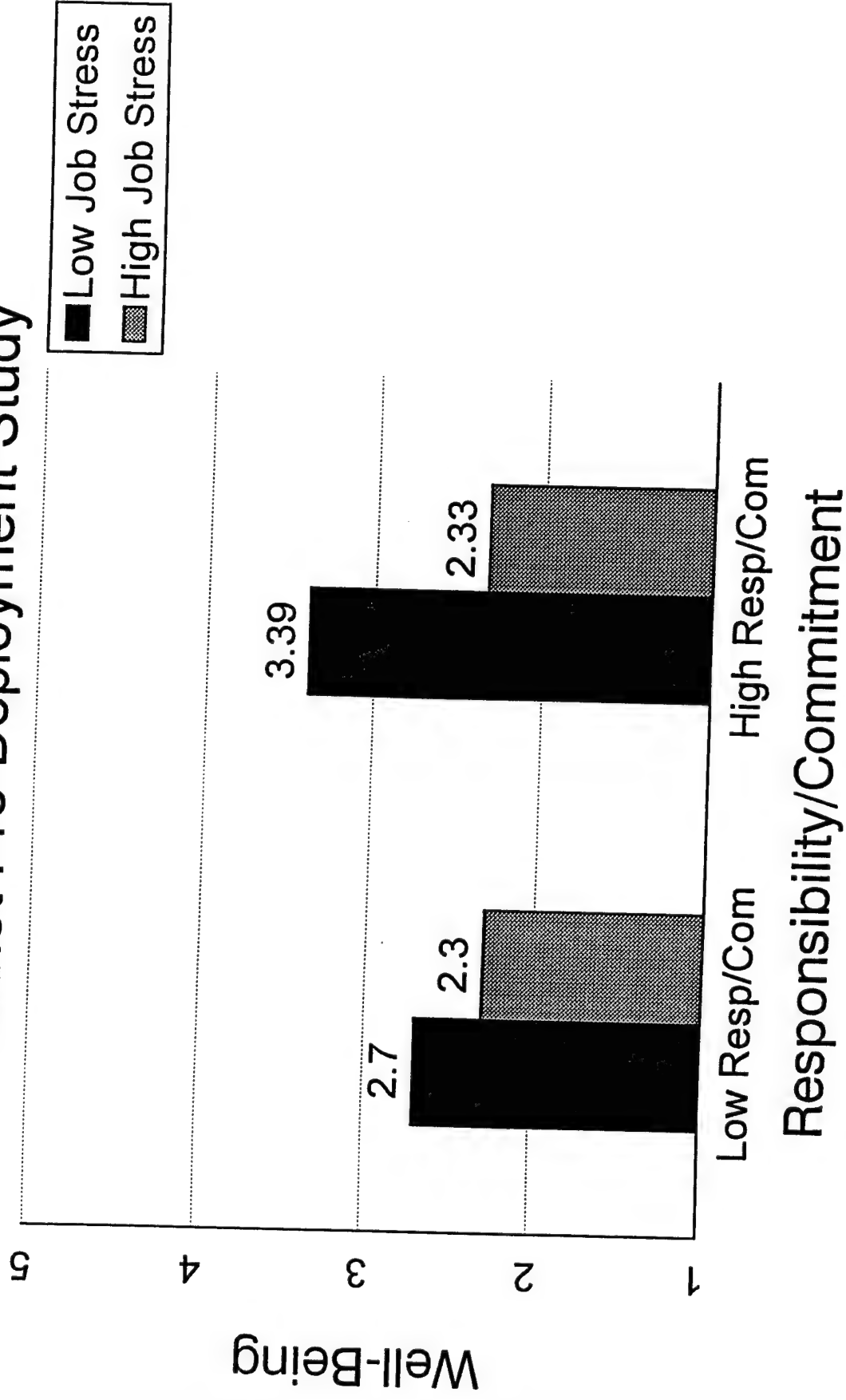


Figure 3: Psychological Well-Being as a Function of Responsibility/Commitment and Stress on the Job

Patriot Pre-Deployment Study



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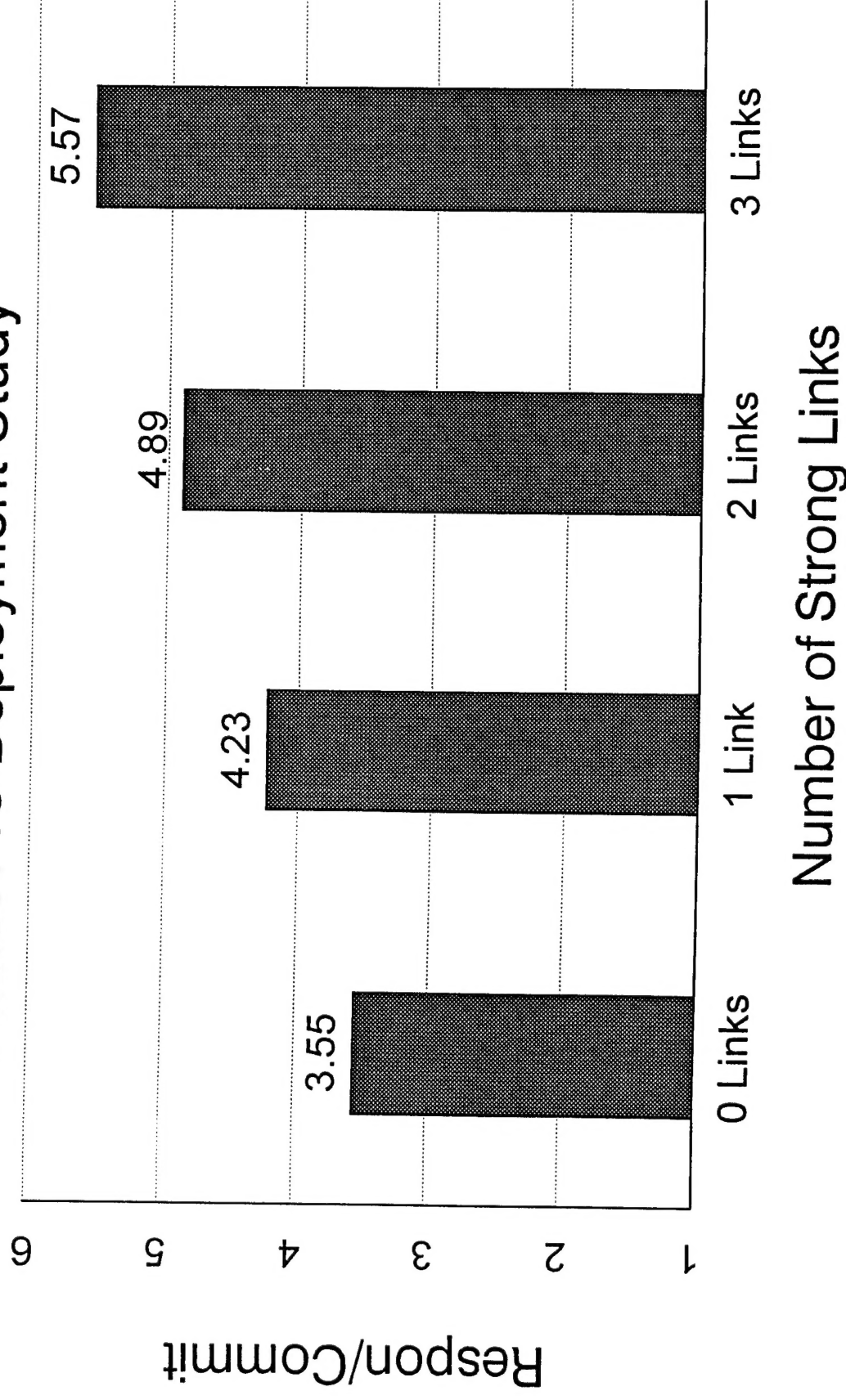


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Patriot Pre-Deployment Study

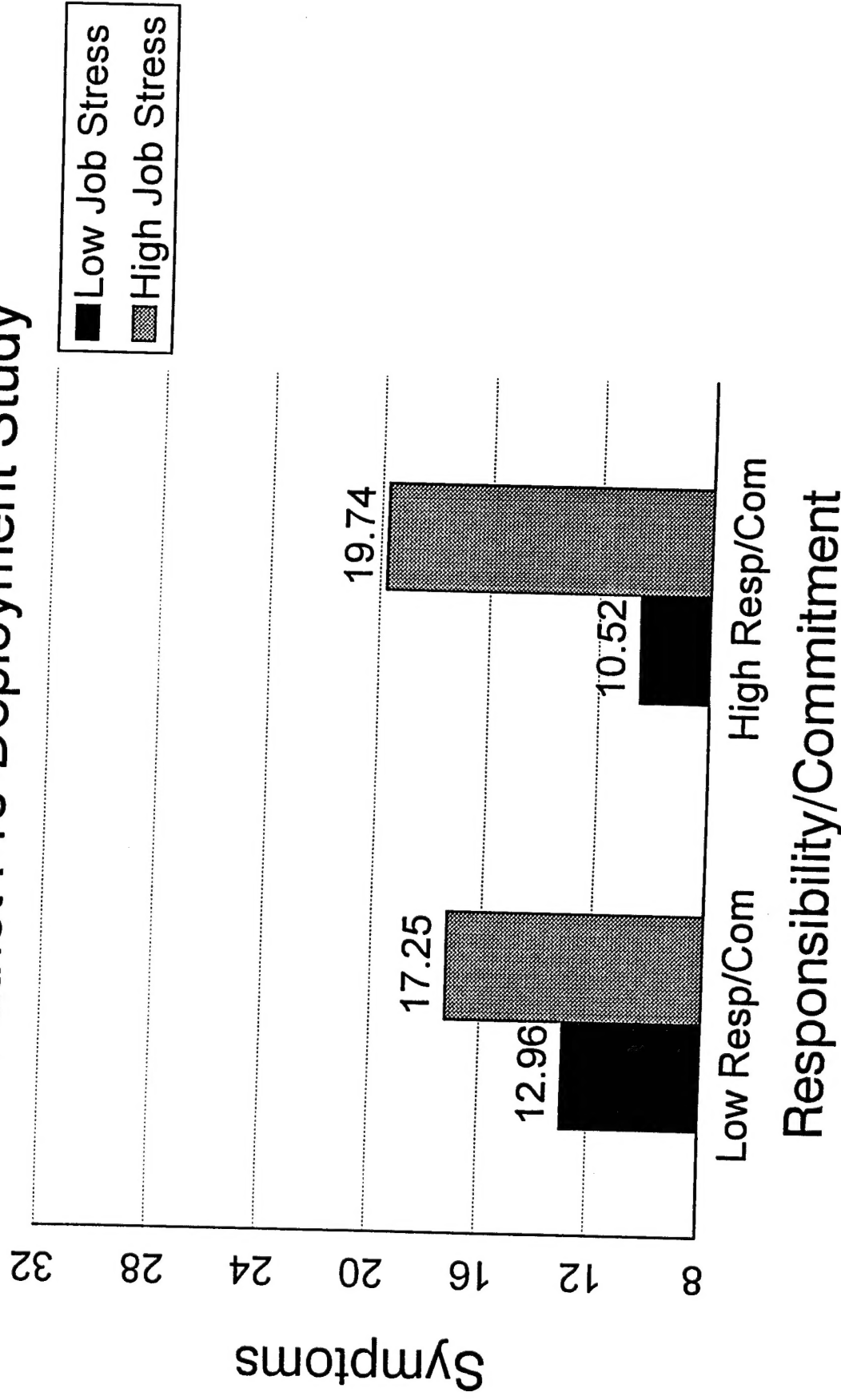


Figure 3: Psychological Well-Being as a Function of Responsibility/Commitment and Stress on the Job
Patriot Pre-Deployment Study

